

Grade 4 Academic Standards

Unit 4 Lesson

Science

Standard 1 The Nature of Science and Technology

Technology and Science

- 4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.

Standard 2 Scientific Thinking

Communication Skills

- 4.2.4 Use numerical data to describe and compare objects and events.

Critical Response Skills

- 4.2.7 Identify better reasons for believing something than “Everybody knows that...” or “I just know” and discount such reasons when given by others.

Standard 3 The Physical Setting

The Earth and the Processes that shape it

- 4.3.2 Begin to investigate and explain that air is a substance that surrounds us, takes up space, and whose movements we feel as wind.
- 4.3.14 Explain that energy in fossil fuels comes from plants that grew long ago.

Standard 4 The Living Environment

Human Identity

- 4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.

Standard 5 The Mathematical World

Shapes and Symbolic Relationships

4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.

Unit 4 - Activities 1-6 satisfy the following Indiana academic standards:

Science

- 4.2.4 Use numerical data to describe and compare objects and events.
- 4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.
- 4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.
- 4.2.7 Identify better reasons for believing something than “Everybody knows that...”, or “I just know” and discount such reasons when given by others.
- 4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.
- 4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.